

1 Conversion Instructions "Sealing of Membrane Keypad"

General

The conversion instructions "Sealing of Membrane Keypad" is divided into two sections:

- Conversion instructions for Incubator 8000 IC/SC/NC without skin-temperature control
- Conversion instructions for Incubator 8000 IC/SC/NC with skin-temperature control/thermomonitoring

If the membrane keypad needs to be replaced with a new one, modify the new membrane keypad as described in one of the following conversion instructions.

A fully functional membrane keypad may also be modified as a preventive measure in order to increased its reliability. Since there is a risk that the existing adhesive tape on the electronic module is damaged during the conversion procedure, order adhesive tape 19x2 WS prior to conversion.

1.1 Conversion instructions for Incubator 8000 IC/SC/NC without skin-temperature control

1. Switch Incubator off at ON/OFF switch.
2. Unplug power plug of Incubator from mains socket-outlet.



Electrostatic discharge may damage electrostatic sensitive devices. When handling electrostatic sensitive devices, use a static-dissipative mat and a static dissipative wrist strap.

3. Create ESD conditions.
4. Remove electronic module from Incubator.
5. Remove defective membrane keypad from electronic module and dispose of according to local waste disposal regulations.

6. Apply a silicone film (e.g. using silicone glue Wacker Elastosil E41, P/N 12 02 537) to new membrane keypad. The silicone glue must cover the recesses on the metal plate as well as an area of approx. 2 cm left and right of each recess between the membrane keypad and the metal plate (see the following Figure). The recesses are located on the top side of the membrane keypad on a level with the alarm LEDs.
7. Remove any excess amount of silicone glue using a cloth.

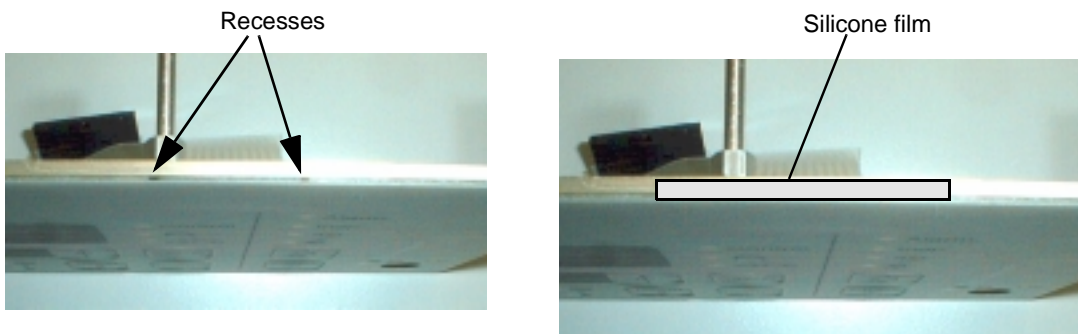


Fig. 1: Upper edge of membrane keypad; recesses on metal plate

8. Fit membrane keypad to electronic module.



If the adhesive tape is not positioned properly the first time, it may damage the silicone film (thus re-opening an already sealed area) when you try it a second time. Therefore, make sure the adhesive tape is positioned properly the first time.

9. Attach adhesive tape 19x2 WS to top side of membrane keypad and electronic module.



Fig. 2: Electronic module of Incubator 8000 SC/NC; adhesive tape

10. Fit electronic module into Incubator.
11. Close Incubator.

12. Check Incubator using Test Certificate, see "Electrical safety" and "Functional tests".

1.2 Conversion instructions Incubator 8000 IC/SC/NC with skin-temperature control/thermomonitoring

1. Switch Incubator off at ON/OFF switch.
2. Unplug power plug of Incubator from mains socket-outlet.



Electrostatic discharge may damage electrostatic sensitive devices. When handling electrostatic sensitive devices, use a static-dissipative mat and a static dissipative wrist strap.

3. Create ESD conditions.
4. Open Incubator cover plate.
5. Fold electronic module down.
6. Remove electronic module from Incubator.
7. Remove defective membrane keypad from electronic module and dispose of according to local waste disposal regulations.
8. Pull keypad strip out of membrane keypad, e.g. using tweezers.

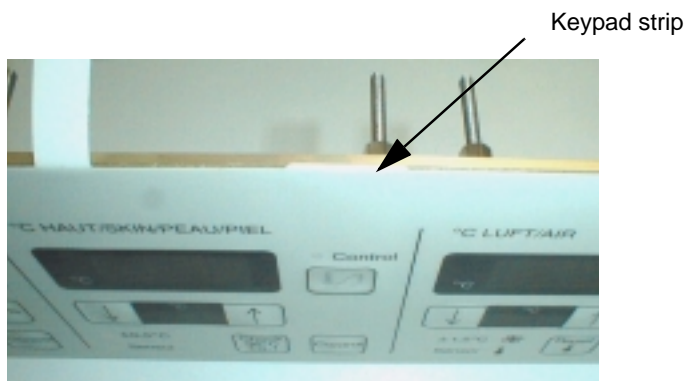


Fig. 3: Upper edge of membrane keypad; keypad strip

9. Shorten keypad strip by approx. 1 mm.

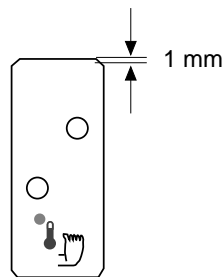


Fig. 4: Keypad strip

10. Fully insert shortened keypad strip between keypad and metal plate of new keypad (make sure correct side is on top). The keypad strip must not protrude from the membrane keypad.
11. Apply a silicone film (e.g. using silicone glue Wacker Elastosil E41, P/N 1202537) to new membrane keypad. The silicone film must cover the area to be sealed (opening of the seam of the keypad strip and an area of approx. 2 cm left and right of the seam) between the membrane keypad and the metal plate.
12. Remove any excess amount of silicone glue using a cloth.

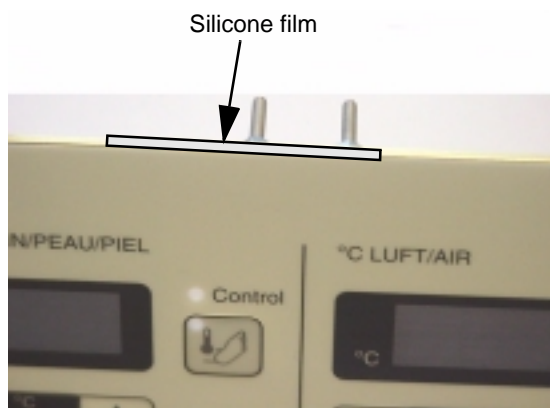


Fig. 5: Upper edge of membrane keypad; sealing the membrane keypad

13. Apply a silicone film to recesses on metal plate as well as to an area of approx. 2 cm left and right of each recess between membrane keypad and metal plate (see the following Figure). The recesses are located on the top side of the membrane keypad on a level with the alarm LEDs).
14. Remove any excess amount of silicone using a cloth.

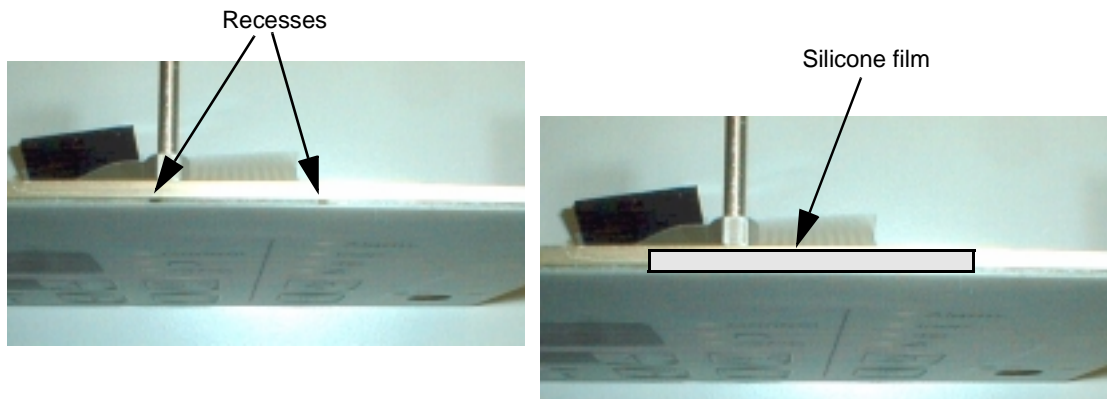


Fig. 6: Upper edge of membrane keypad; recesses on metal plate

15. Fit membrane keypad to electronic module.



If the adhesive tape is not positioned properly the first time, it may damage the silicone film (thus re-opening an already sealed area) when you try it a second time. Therefore, make sure the adhesive tape is positioned properly the first time.

16. Attach adhesive tape 19x2 WS to top side of membrane keypad and electronic module.



Fig. 7: Electronic module of Incubator 8000 SC/NC; adhesive tape

17. Fit electronic module into Incubator.
18. Close Incubator.

19. Check Incubator using Test Certificate, see "Electrical safety" and "Functional tests".